COUNTY OF SAN LUIS OBISPO

June 2000

1999 Water Quality Report
Shandon

To our customers

The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. We sincerely hope this report gives you the information you seek and have a right to know.

What is the source of my drinking water?

Your water comes from two groundwater wells located in Shandon. The water is cleaned through a natural filtration process as it trickles down through the ground. During this process, water may also pick up contaminants found in the soil, either natural or man-made. Groundwater is normally very clean and is simply disinfected with chlorine to help minimize viral and bacterial contamination.

Shandon well house and tank. Photo by Dan Migliazzo

Shandon wells combined are capable of producing 700 gallons of water per minute. Each well is equipped with on-line monitoring equipment to notify operators if there is a problem at the well site.

How is the water system operated?

The Shandon water system is assigned one part-time water treatment operator. All operators who work for the County are certified by the California Department of Health Services (DHS). They are knowledgeable professionals dedicated to maintaining an excellent water system and providing you with the best quality water possible.

1999 Water Statistics

- **Shandon Water Production**
  - ⇒ **38.9 million gallons**
- **Average Daily Demand**
  - ⇒ **106,527 gallons**

Where is the water tested?

Water sampling and analysis are performed by the San Luis Obispo County Water Quality Laboratory. The lab is certified by the DHS as an environmental testing laboratory for bacteriological and chemical analyses. Federal and State requirements dictate that all regulatory analyses be performed by certified labs following approved procedures.

Where can the community participate in decisions regarding water quality?

The San Luis Obispo County Board of Supervisors meets every Tuesday (except the 5th Tuesday in a month) in the board chambers located in the Government Center Annex (1050 Monterey Street, San Luis Obispo). The Board will hold budget hearings during the month of June 2000. Interested persons should check the Board's agendas for specific dates. Agendas for all Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the Board of Supervisors internet web site at http://www.slonet.org/vv/ipslocao/agendas.html.

Is there a problem with the water quality?

The water in Shandon is considered hard, with an average concentration of 200 parts per million or 11 grains per gallon. Hardness in water is usually associated with two beneficial chemicals – calcium and magnesium. Hard water can inhibit the cleaning action of soaps and cause scale formation on plumbing fixtures.

It is purely a matter of preference whether an individual wishes to reduce the hardness of their water by using a water softener. A typical home water softener unit replaces the calcium and magnesium ions in your water with sodium. Soft water is more corrosive than hard water and can cause plumbing and soldering to corrode.

The water in Shandon meets all Federal and State drinking water requirements and overall can be considered very good water.

Este informe contiene informacíon muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.

TERMS USED IN THIS REPORT:

Maximum Contaminant Level Goal (MCLG) and Public Health Goal (PHG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the Federal Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Primary Drinking Water Standards (PDWS) – MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS) – MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

NS (No Standard): Contaminant for which there is no established MCL.
ND (Not Detected): Contaminant is not detectable at testing limit
pCi/L: picoCuries per liter (a measure of radiation)
ppm: parts per million, or milligrams per liter (mg/L)
ppb: parts per billion, or micrograms per liter (µg/L)
ppt: parts per trillion, or nanograms per liter (ng/L)
NTU: Nephelometric Turbidity Unit
TON: Threshold Odor Number
LI: Langelier Index; Noncorrosive = Any positive value, Corrosive = Any negative value

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants* which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (Department) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Tables 1,2,3,and 4 list all of the drinking water contaminants that were detected from January 1999 through December 1999, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

Table 1 – Detection of Contaminants with a Primary Drinking Water Standard			**Shandon Wells**			
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Sample Date**	**Range**	**Average**	**Potential Source of Contamination**
Arsenic (ppb)	50	-----	May 98	2.4—2.6	2.5	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppb)	1000	(2000)	May 98	160—180	170	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits

Table 1 (Continued) – Detection of Contaminants with a Primary Drinking Water Standard			Shandon Wells			
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Sample Date**	**Range**	**Average**	**Potential Source of Contamination**
Fluoride (ppb)	2000	1000	May 98	150—160	160	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	15	(0)	1996	1.0±1—2±1	2	Erosion of natural deposits
Nitrate as NO_3 (ppm)	45	45	——	9.7—16	13	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Table 2 – Lead and Copper		Shandon Wells				
Contaminant (reporting units)	**AL**	**MCLG**	**Number of Samples Collected**	**90th Percentile Level Detected**	**Number of Sites found above the AL**	**Potential Source of Contamination**
Lead (ppb)	15	2	10	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	170	10	150	0	Internal corrosion of household water plumbing systems

Table 3 – Detection of Contaminants with a Secondary Drinking Water Standard		Shandon Wells		
Contaminant (reporting units)	**MCL**	**Range**	**Average**	**Potential Source of Contamination**
Chloride (ppm)	500	44—72	58	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	1—2	2	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	-0.1—0.0	-0.1	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor – Threshold	3		1.0	Naturally occurring organic materials
Specific Conductance (micromhos)	1600	522—670	596	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	52—85	68	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	0.06—0.12	0.09	Soil Runoff
Total Dissolved Solids (ppm)	1000	330—440	380	Runoff/leaching from natural deposits

Table 4 – Detection of Contaminants	Shandon Wells		
Contaminant (reporting units)	**Range**	**Average**	**Potential Source of Contamination**
Alkalinity as $CaCO_3$ (ppm)	120—130	130	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)	56—72	64	Runoff/leaching from natural deposits; seawater influence
Hardness (ppm)	170—220	200	Generally found in ground and surface water
Magnesium (ppm)	8.0—9.2	8.6	Runoff/leaching from natural deposits; seawater influence
pH	7.53—7.56	7.54	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	39—49	44	Runoff/leaching from natural deposits; seawater influence

Additional General Information on Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDs or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water

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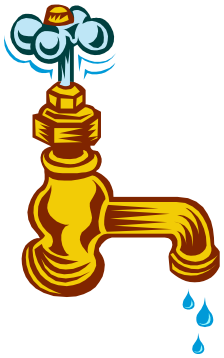
Additional General Information on Drinking Water (Continued)

from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additionally, the Office of Ground Water and Drinking Water at EPA maintains a website with useful information on drinking water. The address is http://www.epa.gov/OGWDW/. Additional information can be obtained by accessing the American Water Works Association's website at http://www.awwa.org or by calling Percy Garcia , Water Quality Manager at 781-5111, John Beaton, Senior Water Systems Chemist at 781-5109, or Faith Zenker, Water Systems Chemist at 781-1575 at the County Water Quality Laboratory.

Anticipated Projects for 2000 through 2001

- ✓ New tank installation
- ✓ Meter Replacement Program



Water Conservation

The County of San Luis Obispo would like to remind all water users of the importance of water conservation. It is important that this issue is addressed at all levels including both the county and the individual community members. There are many ways to conserve water and a few examples are:

- Grow plants that do not need a lot of water, such as native plants
- Fix leaky pipes, interior faucets or hose bibs
- Installing low-flow toilets & shower heads
- Water gardens and wash cars in the evening, rather than during the day when water will evaporate
- Sweep your pavement rather than hose it down
- Use hose with shutoff nozzle for washing cars
- Purchase washing machine and dishwasher rated for low water usage